

IN THE CLAIMS:

The follow claim listing replaces all previous claim listings in the application.

1           Claims 1-4. (cancelled)

1           Claim 5. (currently amended)   An addressing information  
2 generation system embodied in computer readable medium comprising:  
3           a difference computation unit for computing a difference between  
4 structured documents; and  
5           an addressing information generation unit for generating  
6 addressing information from addressing information that addresses a  
7 part of a particular structured document based on information on the  
8 difference computed by the difference computation unit, the generated  
9 addressing information addressing a corresponding part of the other  
10 structured document; and  
11           wherein the addressing information is written in XPath and  
12 addressing information generation unit generates an XPath for the other  
13 structured document by regenerating LocationSteps forming an XPath for  
14 the particular structured document based on the difference between the  
15 structured documents and on the XPath for the particular structured  
16 document.

1           Claim 6. (original)   An addressing information generation system  
2 according to claim 5, further comprising a document analysis unit for  
3 analyzing structures of the structured documents and converting the  
4 structures into tree-structured data items,  
5           wherein the difference computation unit computes the difference  
6 by comparing the tree-structured data items corresponding to the  
7 structured documents converted by the document analysis unit.

1           Claim 7. (original)   An addressing information generation system  
2 according to claim 6, wherein the difference computation unit computes  
3 the difference between the tree-structured data items to track a  
4 component of the tree-structured data items that is moved in operations  
5 for transforming one of the tree-structured data items into the other  
6 tree-structured data item.

1           Claims 8 and 9. (cancelled)

1           Claim 10. (currently amended) A program embodied in computer  
2 readable medium for controlling a computer so that the computer  
3 performs data processing for addressing at least one predetermined  
4 element in a structured document, the program causing the computer to  
5 perform:

6           first processing of, when the structured document having the  
7 element addressed by predetermined addressing information is modified,  
8 inputting the structured document to analyze the modification and  
9 storing an analysis result in a memory; and

10          second processing of reading the analysis result from the memory  
11 and updating the addressing information according to the analyzed  
12 modification so that the addressing information addresses at least one  
13 corresponding element in the modified structured document; and

14          wherein the first processing provided by the program comprises  
15 the processing of:

16                 converting an unmodified version and a modified version of  
17 the structured document into tree-structured data items; and

18                 computing a difference between the tree-structured data  
19 items to track a component of the tree-structured data items that is  
20 moved in operations required for transformation between the tree-  
21 structured data items transformed from one to the other according to  
22 modification of the structured document; and

23                 wherein in the second processing provided by the program, the  
24 program causes the computer to update the addressing information based  
25 on the difference between the tree-structured data items.

1           Claims 11 and 12. (cancelled)

1           Claim 13. (currently amended) A program ~~according to claim 10,~~  
2 embodied in computer readable medium for controlling a computer so that  
3 the computer performs data processing for addressing at least one  
4 predetermined element in a structured document, the program causing the  
5 computer to perform:

6           first processing of, when the structured document having the  
7 element addressed by predetermined addressing information is modified,  
8 inputting the structured document to analyze the modification and  
9 storing an analysis result in a memory; and

10        second processing of reading the analysis result from the memory  
11        and updating the addressing information according to the analyzed  
12        modification so that the addressing information addresses at least one  
13        corresponding element in the modified structured document; and  
14        wherein in the second processing provided by the program, the  
15        program causes the computer to update an XPath describing the  
16        addressing information by regenerating LocationSteps forming the XPath  
17        based on the difference between the unmodified version and the modified  
18        version of the structured document.

1            Claim 14. (currently amended) A program embodied in computer  
2        readable medium for controlling a computer to compute a difference  
3        between at least two tree-structured data items, the program causing  
4        the computer to perform:

5            first processing of reading at least two tree-structured data  
6        items to be processed from memory to compare the at least two tree-  
7        structured data items, creating an operation sequence, in which each  
8        operation for transforming one of the tree-structured data items into  
9        the other tree-structured data item is expressed as a combination of  
10        predetermined operations, on a component of a tree-structure, and  
11        storing the list in memory; and

12            second processing of reading the operation sequences from the  
13        memory and changing operations in the operation sequence that are  
14        interpreted as a movement of a component into an operation of moving  
15        the component; and

16            wherein in the second processing provided by the program, the  
17        program causes the computer to add an operation of moving a component  
18        of the tree-structured data items to the operation sequences in place  
19        of a pair of operations of removing and inserting the component in the  
20        operation sequences.

1            Claim 15. (cancelled)

1            Claim 16. (currently amended) A program ~~according to claim 14,~~  
2        embodied in computer readable medium for controlling a computer to  
3        compute a difference between at least two tree-structured data items,  
4        the program causing the computer to perform:

5            first processing of reading at least two tree-structured data

6 items to be processed from memory to compare the at least two tree-  
7 structured data items, creating an operation sequence, in which each  
8 operation for transforming one of the tree-structured data items into  
9 the other tree-structured data item is expressed as a combination of  
10 predetermined operations, on a component of a tree-structure, and  
11 storing the list in memory; and

12 second processing of reading the operation sequences from the  
13 memory and changing operations in the operation sequence that are  
14 interpreted as a movement of a component into an operation of moving  
15 the component; and

16 wherein in the second processing provided by the program, the  
17 program causes the computer to replace, based on a predetermined rule,  
18 an operation of modifying a component of the tree-structured data items  
19 in the operation sequences with a different operation that involves  
20 moving the component.

1 Claims 17-21. (cancelled)

1 Claim 22. (original) A computer program product comprising a  
2 computer usable medium having computer readable program code means  
3 embodied therein for causing addressing information generation, the  
4 computer readable program code means in said computer program product  
5 comprising computer readable program code means for causing a computer  
6 to effect the functions of claim 5.

1 Claim 23. (cancelled)

1 Claim 24. (new) A program according to claim 13,  
2 wherein the first processing provided by the program comprises  
3 the processing of:  
4 converting an unmodified version and a modified version of the  
5 structured document into tree-structured data items; and  
6 computing a difference between the tree-structured data items,  
7 and  
8 wherein in the second processing provided by the program, the  
9 program causes the computer to update the addressing information based  
10 on the difference between the tree-structured data items.

1           Claim 25. (new) A program according to claim 24, wherein in the  
2 processing of computing the difference provided by the program, the  
3 program causes the computer to compute the difference between the tree-  
4 structured data items to track a component of the tree-structured data  
5 items that is moved in operations required for transformation between  
6 the tree-structured data items transformed from one to the other  
7 according to modification of the structured document.

1           Claim 26. (new) A program according to claim 16, wherein in the  
2 second processing provided by the program, the program causes the  
3 computer to add an operation of moving a component of the tree-  
4 structured data items to the operation sequences in place of a pair of  
5 operations of removing and inserting the component in the operation  
6 sequences.